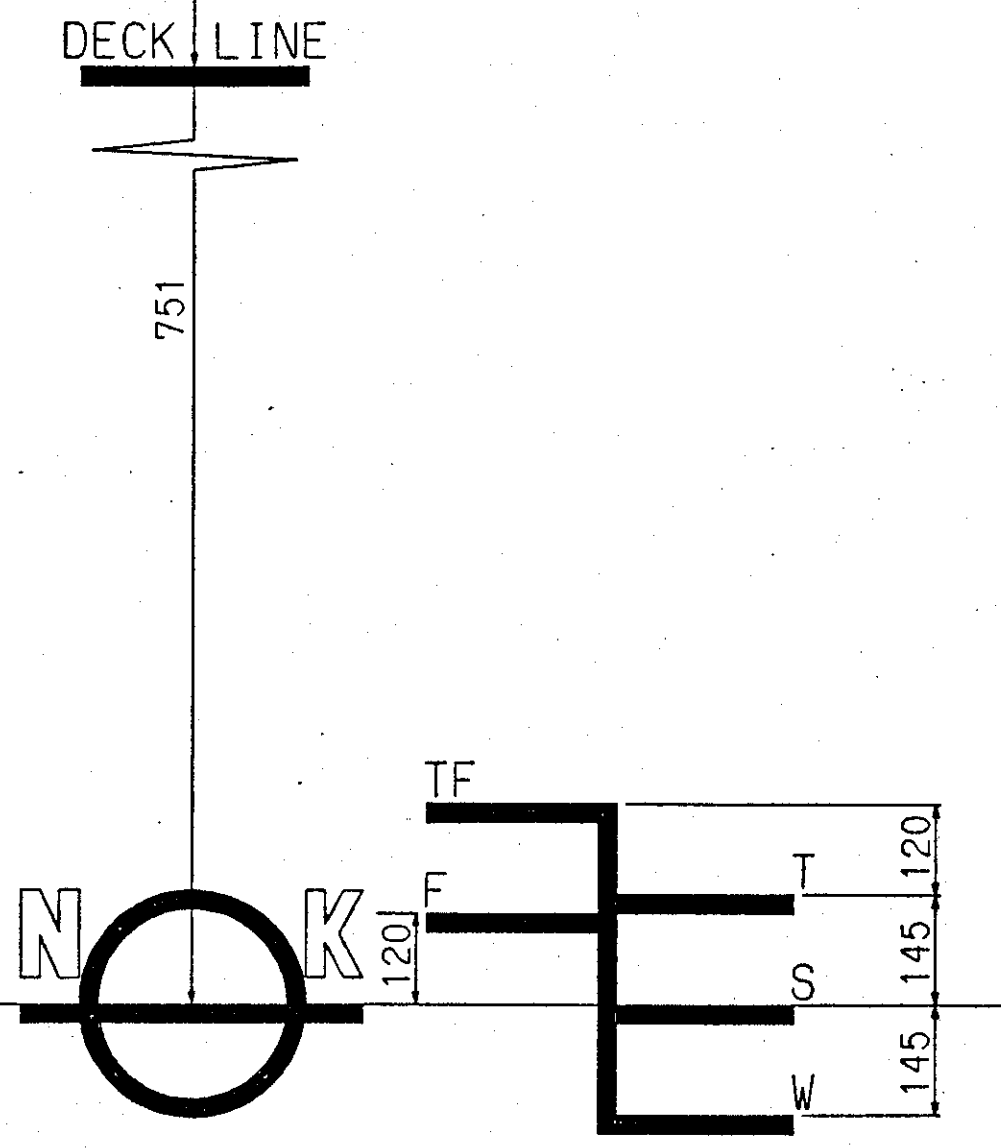
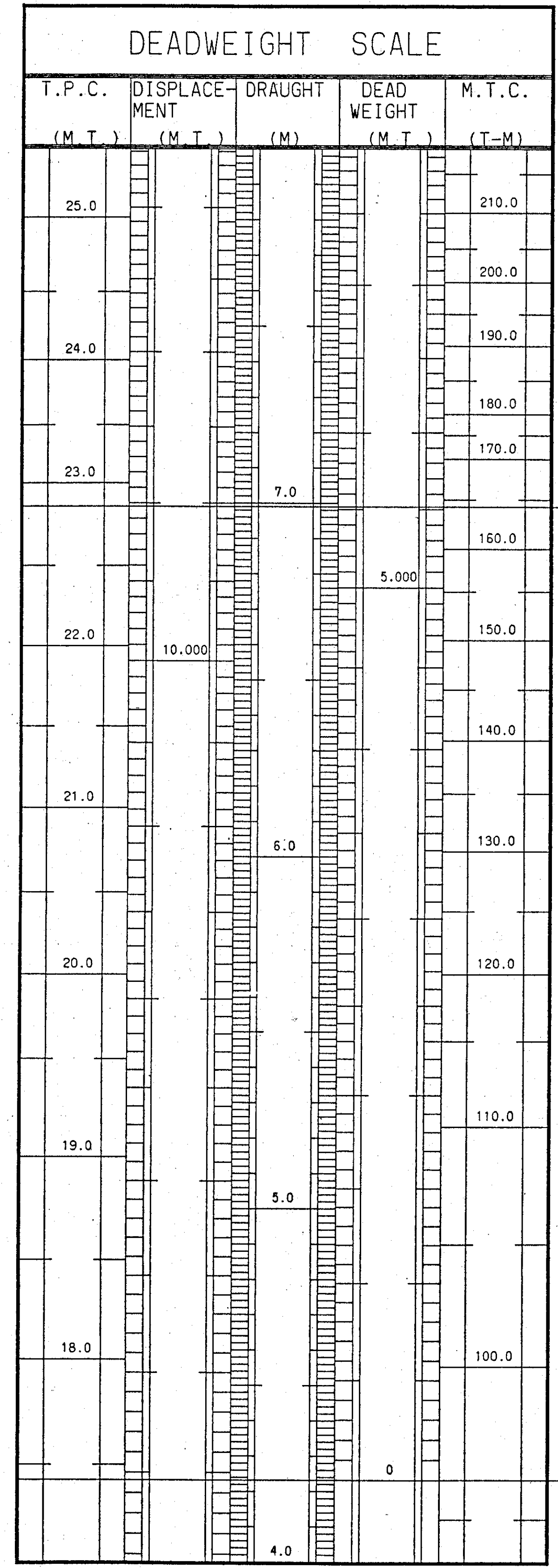


ほくれん丸 CAPACITY PLAN WITH DEADWEIGHT SCALE



FULL LOAD DRAUGHT 6.990 M
 FULL LOAD DISPLACEMENT 10,979 M.T.
 FULL LOAD DEADWEIGHT 5,517 M.T.
 (5,230 L.T.)

LOAD LINE	MARK	FREEBOARD (mm)	DRAUGHT (m)	DISPLACEMENT (M.T.)	DEADWEIGHT (M.T.)	DEADWEIGHT (L.T.)
TROPICAL FRESH WATER	TF	486	7.255	11,309	5,847	5,755
FRESH WATER	F	631	7.110	11,312	5,850	5,758
TROPICAL	T	606	7.135	10,980	5,518	5,431
SUMMER	S	751	6.990	10,979	5,517	5,430
WINTER	W	896	6.845	10,649	5,187	5,105
WINTER NORTH ATLANTIC	WNA	896	6.845	10,649	5,187	5,105

LIGHT CONDITION

LIGHT SHIP WEIGHT	5,462	M.T.
CORRESPONDING DRAUGHT	4,230	M
FORE DRAUGHT	1.58	M
AFT DRAUGHT	6.68	M
MEAN DRAUGHT	4.13	M
TRIM BY THE STERN	5.10	M

* FUEL OIL TANK (100% FULL) S.G.: HEAVY OIL = 0.950 DIESEL OIL = 0.880

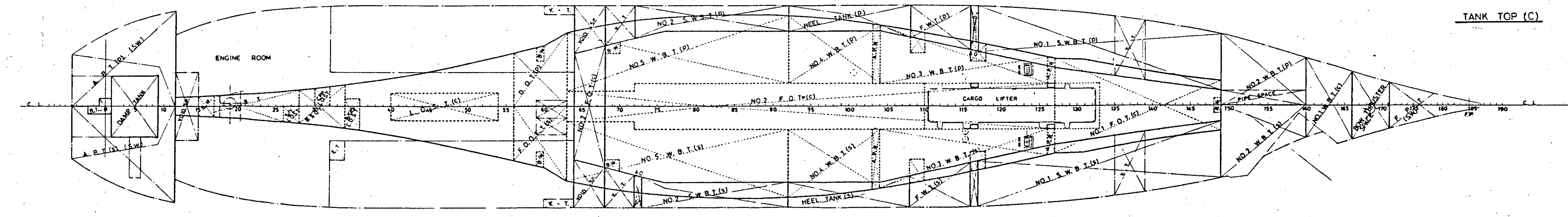
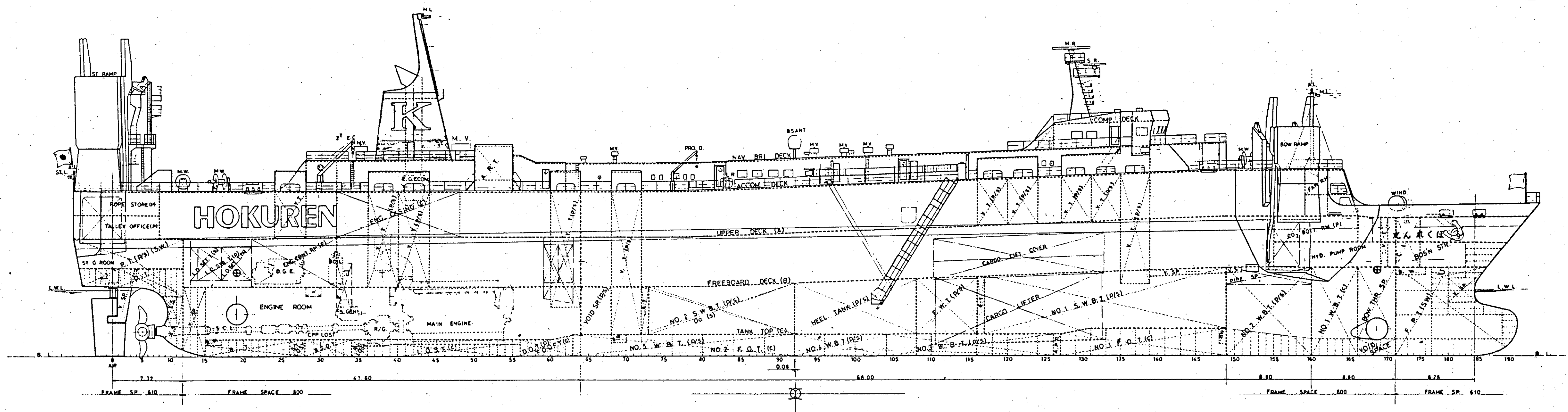
NAME	POSITION	CAPACITY	WEIGHT	KG	KG
	FRAME	m ³	MT	m	m
NO. 1 FUEL OIL T.	C 127 ~ 149	247.26	234.90	-36.26	1.61
NO. 2 FUEL OIL T.	C 63 ~ 127	659.71	626.72	4.98	2.18
SUM		906.97	861.62		
DIESEL OIL TANK	P 56 ~ 63	47.99	42.23	25.80	1.13
TOTAL		954.96	903.85		

* LUBRICATING OIL TANK (100% FULL) S.G. = 0.920

NAME	POSITION	CAPACITY	WEIGHT	KG	KG
	FRAME	m ³	MT	m	m
L. O. SUMP TANK	C 40 ~ 54	47.61	43.80	36.02	0.80
R/G L. O. S. T.	C 34 ~ 36	5.13	4.72	45.67	0.89
CPP L. O. S. T.	P 30 ~ 32	4.07	3.74	48.87	1.05
S/T L. O. S. T.	C 26 ~ 28	3.53	3.25	52.07	1.04
TOTAL		60.34	55.51		

* OTHER TANK (100% FULL)

NAME	POSITION	CAPACITY	KG	KG
	FRAME	m ³	m	m
F. O. OVER F. T.	S 56 ~ 63	47.99	25.80	1.13
BILGE S. O. T.	C 28 ~ 34	20.42	48.78	1.05
BILGE TANK	C 15 ~ 28	32.76	56.23	0.01



* WATER BALLAST TANK (100% FULL) S.G.: 1.025

NAME	POSITION	CAPACITY	WEIGHT	KG	KG
	FRAME	m ³	MT	m	m
FORE PEAK TANK	C 171 ~ F.E.	140.68	144.20	-68.05	3.86
NO.1 W. B. T.	C 160 ~ 166	156.70	160.62	-56.63	5.53
NO.2 W. B. T.	P 149 ~ 160	196.62	201.54	-49.51	5.44
	S 149 ~ 160	215.96	221.36	-49.46	5.69
NO.3 W. B. T.	P 104 ~ 127	111.75	114.54	-16.96	1.41
	S 104 ~ 127	111.75	114.54	-16.96	1.41
NO.4 W. B. T.	P 92 ~ 104	100.24	102.75	-4.34	1.37
	S 92 ~ 104	100.24	102.75	-4.34	1.37
NO.5 W. B. T.	P 63 ~ 92	260.75	267.27	11.26	1.39
	S 63 ~ 92	260.75	267.27	11.26	1.39
NO.1 S. B. T.	P 117 ~ 149	474.25	486.11	-32.08	6.40
	S 117 ~ 149	474.65	486.52	-32.06	6.40
NO.2 S. B. T.	P 72 ~ 92	209.60	214.84	8.13	5.03
	S 73 ~ 92	197.32	202.25	7.66	5.03
HEEL. TANK	P 92 ~ 108	164.92	169.04	-6.27	5.43
	S 92 ~ 108	164.92	169.04	-6.27	5.43
AFT PEAK TANK	P A.E. ~ 12	312.40	320.21	68.88	9.99
	S A.E. ~ 12	272.34	279.15	68.50	9.81
TOTAL	18 TKS	3925.84	4024.00		

* CARGO 12m CHASSIS

NUMBER	WEIGHT	KG	KG
	(t)	m	m
UPPER DECK	51	1,530	15.59
FREEBOARD DECK	37	1,110	10.24
TANK TOP	12	360	4.71
TOTAL	100	3,000	

* ANT. ROLL. TANK (100% FULL) S.G. = 1.025

NAME	POSITION	CAPACITY	WEIGHT	KG	KG
	FRAME	m ³	MT	m	m
ANT. ROLL. TANK	C 50 ~ 55	209.51	214.75	31.68	19.32

* FRESH WATER TANK (100% FULL) S.G. = 1.000

NAME	POSITION	CAPACITY	WEIGHT	KG	KG
	FRAME	m ³	MT	m	m
FRESH WATER T.	P 108 ~ 116	107.90	107.90	-15.97	5.69
DRINK. WATER T.	S 108 ~ 116	107.90	107.90	-15.97	5.69
TOTAL		215.80	215.80		

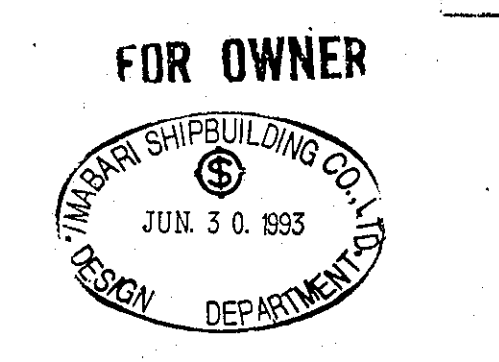
PRINCIPAL PARTICULARS

LENGTH (O.A.)	153.62 M
LENGTH (B.P.)	142.80 M
BREADTH (MID)	21.40 M
DEPTH (UPPER DECK LOWEST LEVEL, MID)	12.40 M
DEPTH (FREEBOARD LOWEST LEVEL, MID)	7.35 M
DRAUGHT (SUMMER EXT.)	6.990 M
DEADWEIGHT (AT ASSIGNED DRAUGHT)	5,517 M.T.
GROSS TONNAGE (J.G.)	7,096 T
MAIN ENGINE	16 PC4-2V 1 SET
MAX OUTPUT	26,400 PS x 400 RPM
NOR. OUTPUT	23,760 PS x 386 RPM (90% M.C.R.)
SPEED	
SERVICE (at NOR. with 15% S.M. without S.G.)	23.50 KNOTS
TRIAL MAX.	25.28 KNOTS
CLASS	NK
	N S* (ROLL ON-ROLL OFF CARGO SHIP)
	MNS*(M.O)

COMPLEMENT

DECK PART	ENGINE PART	BUSINES PART	
CAPTAIN	1 C/ENG.	1	--
C/OFF	1 1/ENG	1	--
2/OFF	1 2/ENG	1	--
3/OFF	1	1	--
BOATSWAIN	1	C/STEW	1
CREW	3		--
TOTAL			12 P.
SPARE (SENIOR OFFICER CLASS)			1 P.
OWNER (CAPTAIN CLASS DOUBLE BERTH)			2 P.
PASSENGER (DOUBLE BERTH)			12 P.
GRAND TOTAL			(27 P.)

船主名 川崎海運汽船株式会社
 船名 ほくれん丸
 21.5
 積 七、〇八〇 総トン
 庫 ロール・オン・ロール・オフ 貨物 船
 船番 S-502
 IMABARI SHIPBUILDING CO., LTD.
 今治造船株式会社
 SHIP-YARD IMABARI SHIPYARD
 DESIGN DEPARTMENT
 BASIC DESIGN SECTION
 MANAGER CHIEF CHECKER DRAWN
 SCALE CLASS NK
 DATE 平成 5 年 6 月 23 日
 DWG. NO. KC - 0300 - 0



OWNER'S SERIAL NO. B-03